

Recent IBM patents

The following patents were recently issued by the countries in which the inventions were made. For U.S. patents, titles and names supplied to us by the U.S. Patent Office are reproduced exactly as they appear on the original published patent.

Federal Republic of Germany

2,326,447	W. Beck, B. Jvancic, F. C. Brunner, F. Schwerdt, P. U. Frasch, and T. Vogtmann	Method for Stripping Layers of Organic Material
2,727,558	D. J. Bahr and K. H. Burkhardt	Multiple-Electrode Print Head for Electro-Erosion Printers
3,071,288,008	H. Hinkel, J. Kempf, G. Kraus, and G. E. Schmid	Method of Making Semiconductor Device Structures by Means of Ion Implantation Under Partial Pressure of Oxygen
3,173,451,008	G. Makosch and F. Schedewie	Method and Means for Interferometric Surface Topography
3,173,631,908	A. Blum and H. Schettler	Testing an Integrated Circuit Containing a Tristate Driver and a Control Signal Generating a Network Therefor
3,173,744,708	S. K. Wiedmann and K. Heuber	Method of and Circuit Arrangement for Reading an Integrated Semiconductor Store with Storage Cells in MTL (I ₂ L) Technology
3,173,745,508	L. Arzubi	FET Storage
3,173,882,608	L. Fischer and B. Gantz	Polygon Platen for Type Belt Printers
3,267,765,008	F. W. Hilpert, E. Kohm, M. E. Wohnsdorf, and V. Rudolph	Print Head for an Electroerosion Printer
3,268,802,408	W. Klein, E. Klink, K. Najmann, and F. C. Wernicke	Phase Splitter with Integrated Latch Circuit
3,361,734,108	H. Pietruschka	Apparatus for Automatic Optical Property Testing

France

8,006,542	D. Godard and M. Y. Quintin	Method and Device for Effecting the Initial Adjustment of Clock in a Synchronous Data Receiver
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United Kingdom

63,186	A. Larner	Improvements of Digital Data Processing Apparatus
79,771	D. J. Barclay	Electro-Deposition of Chromium and Its Alloys

United States

4,515,505	R. C. Frisbie, D. E. Houser, R. J. Morenus, and E. L. Thomas	Pressure Foot Assembly for an End Mill Delete Cutter
4,515,544	R. W. Boehm, R. P. Rippstein, and D. R. Stone	Mold Protection Device
4,515,650	P. Chaudhari and R. Müller	Method for Producing Large Grained Semiconductor Ribbons
4,515,828	J. Economy and M. A. Flandera	Planarization Method
4,515,878	D. J. Hall, R. F. Langley, and E. L. Thomas	Printed Circuit Board Modification Process
4,516,165	E. A. Cunningham and D. C. Palmer	Error Recovery Procedure Using Selective Erasure
4,516,247	H. Carsalade, F.-X. Delaporte, and J.-P. Pantani	Signal Receiver Which Indicates the Status of the Device Connected Thereto
4,516,266	R. J. Christopher and R. F. Walker	Entity Control for Raster Displays
4,516,525	S. Bourgeois, J.-F. Carle, H. Lochon, and J.-P. Trotin	Electron Gun Equipment for Vacuum Deposition
4,516,678	E. Fotiadis, E. J. Kozol, T. L. Leung, and R. J. Paul	Floppy Disk Canister

4,516,832	K. Jain and M. R. Latta	Apparatus for Transformation of a Collimated Beam into a Source of Required Shape and Numerical Aperture
4,516,855	H. E. Korth	Method and Apparatus for Determining the Polarization State of a Light Wave Field
4,517,051	C. E. Gazdik and D. G. McBride	Multi-Layer Flexible Film Module
4,517,538	A. Bohg, H. D. Matthaei, and K. Hartmann	Electromagnetic Rotary Actuator with Rocking Movement, in Particular for Impact Printers
4,517,604	D. A. Lasher and W. K. Stelzenmuller	Method for Reducing Line Width Variations in Bilevel Video Images
4,517,641	E. J. Pinheiro	Lookahead I/O Device Control Subsystem
4,517,661	M. C. Graf, H. P. Muhlfeld, Jr., and E. H. Valentine	Programmable Chip Tester Having Plural Pin Unit Buffers Which Each Store Sufficient Test Data for Independent Operations by Each Pin Unit
4,519,128	D. G. Chesebro and F. J. Soyachak	Method of Making a Trench Isolated Device
4,519,553	J. L. Campbell, A. A. Fennema, R. B. Henderson, W. G. Rance, Jr., P. H. Whittington, and W. O. Wightman, Jr.	Multiple Spindle Winding Apparatus
4,519,700	R. B. Barker, R. V. Davidge, D. K. Gibson, and G. W. Van Cleave	Electronically Gated Paper Aligner System
4,519,851	C. H. Perry and R. R. Shaw	Method for Providing Pinhole Free Dielectric Layers
4,519,865	H. J. Bradler, W. Brauner, M. Deyhle, and K. H. Vogt	Device for Two-Sided Application of Foils or Similar Material onto Plate-Shaped Workpieces, and Method of Operating the Same
4,519,872	H. R. Anderson, Jr., H. S. Sachdev, and K. G. Sachdev	Use of Depolymerizable Polymers in the Fabrication of Lift-Off Structure for Multilevel Metal Processes
4,520,269	F. Jones	Electron Beam Lithography Proximity Correction Method
4,520,314	K. Asch, J. Greschner, M. Kallmeyer, and W. Kulcke	Probe Head Arrangement for Conductor Line Testing with at Least One Probe Head Comprising a Plurality of Resilient Contacts
4,520,371	R. V. D. Firth III, W. Goff, Jr., T. C. Ku, and J. M. Rakes	Multi-Zone Thermal Print Head
4,520,391	A. D. Edgar and N. D. Lubart	Diagonal Grid Image Communication and Display
4,520,440	J. P. Buonomo and W. L. Perry	Test Verification of Processor Architecture Having a Partial Instruction Set
4,520,448	B. Tremintin	Method of Characterizing Reliability in Bipolar Semiconductor Devices
4,520,456	G. S. Miranker and C.-K. Wong	Dual Reciprocating Pipelined Sorter
4,520,457	B. J. Hagler and J. T. Repass	Key-Controlled Method for Invoking Automatic Row and Column Addition in an Interactive Text Processing System
4,525,086	T. R. Field, F. M. Hughes, I. D. Shakib, and E. J. Vitek, Jr.	Solenoid Actuated Pivotal Printer Hammer Mechanism
4,525,390	W. A. Alpaugh, W. J. Amelio, V. Markovich, and C. J. Sambucetti	Deposition of Copper from Electroless Plating Compositions
4,525,424	R. L. Bradshaw	Flexible Magnetic Recording Media Having a Polyester-Polyurethane Binder and Chromium Dioxide Pigment
4,525,641	C. A. Cruz and J. C. Vermeulen	Flip-Flop Programmer Using Cascaded Logic Arrays
4,525,707	H. S. Hoffman, Jr., D. R. Thompson, and L. L. Zimmerman	Gas Panel Interrogation by Selective Sustain
4,525,722	K. G. Sachdev, H. S. Sachdev, A. Aviram, and M. A. Wizner	Chemical Heat Amplification in Thermal Transfer Printing
4,525,724	P. A. Franaszek and E. J. Yarmchuk	Magnetic Recording Head Array for Longitudinal Magnetic Printing with Staggered Head Arrangement and Clustered Wiring
4,525,730	J. G. Beha, H. Jaekel, and P. Vettiger	Buried Junction Josephson Interferometer
4,525,731	T. I. Chappell, T. N. Jackson, and J. M. Woodall	Semiconductor Conversion of Optical-to-Electrical Energy
4,525,806	J. G. Barnes, J. A. Hooten, P. J. Hurley, and E. L. Miller	Printer Sharing by Plurality of Display Units in Word Processing System
4,525,810	W. H. Cochran and P. T. Wu	Semiconductor Memory Capable of Both Read/Write and Read-Only Operation
4,525,838	A. M. Patel	Multibyte Error Correcting System Involving a Two-Level Code Structure
4,545,115	H. J. Bauer and B. Garben	Method and Apparatus for Making Ohmic and/or Schottky Barrier Contacts to Semiconductor Substrates
4,545,610	M. N. Lakritz, J. Ordonez, and P. J. Tubiola	Method for Forming Elongated Solder Connections Between a Semiconductor Device and a Supporting Substrate
4,545,625	M. A. Engwall	Prestressed Cylindrical Squeeze Bearing Member
4,545,650	D. H. Kirkman, A. C. Lowe, J. C. Wood, and I. Gollidge	Liquid Filled Electro-Optic Display Cell with Diaphragm Seal
4,545,693	J. C. Bartlett, A. E. Bohnhoff, D. F. Crowley, S. Dyer, K. E. Edds, F. J. Horlander, and D. W. Stafford	Drive for Thermal Printing Lift-Off Correction
4,546,035	M. Ko, M. E. Oxsen, and R. B. Prime	Polymeric Additives for Magnetic Coating Materials
4,546,065	A. Amendola, A. F. Schmeckenbecher, and J. T. Sobon	Process for Forming a Pattern of Metallurgy on the Top of a Ceramic Substrate
4,546,066	C. B. Field and R. C. Lange	Method for Forming Narrow Images on Semiconductor Substrates
4,546,260	R. A. Simpson, R. R. Trotter, and E. V. Weber	Alignment Technique

4,546,385	D. Anastassiou	Data Compression Method for Graphics Images
4,546,405	E. B. Hultmark, C. G. Metreud, and R. A. Yacavonis	Heat Sink for Electronic Package
4,546,413	I. Feinberg, C. J. Kraus, and H. I. Stoller	Engineering Change Facility on Both Major Surfaces of Chip Module
4,546,473	E. B. Eichelberger and E. Lindbloom	Random Pattern Self Test Design
4,546,535	J. F. Shepard	Method of Making Submicron FET Structure
4,546,536	N. G. Anantha, J. Riseman, and P. J. Tsang	Fabrication Methods for High Performance Lateral Bipolar Transistors
4,546,699	W. D. Thorne and D. M. Sedgwick	Printer Having Drive and Control System for Metal Band Holding Print Elements
4,547,044	K. Jain and M. R. Latta	Beam-Folding Wedge Tunnel
4,547,088	M. D. Shattuck	Correctable Thermal Transfer Printing Ribbon
4,547,682	J. S. Bialas, Jr., R. J. Daniels, and W. J. Mruk	Precision Regulation, Frequency Modulated Substrate Voltage Generator
4,547,710	P. W. Bond and J. D. Rockrohr	Cathode Ray Tube Display Horizontal Deflection System with Delay Compensation
4,547,793	D. L. Bergeron	Trench-Defined Semiconductor Structure
4,547,817	K. B. Klaassen	High Frequency Magnetic Recording Method
4,547,824	J. S. Best, K. Lee, and C. H. Tsang	Dual Biasing for Integrated Inductive MR Head
4,554,728	J. F. Shepard	Simplified Planarization Process for Polysilicon Filled Trenches
4,555,285	D. A. Chance, T. C. Reiley, and M. Sampogna	Forming Patterns in Metallic or Ceramic Substrates
4,555,700	D. B. Convis, D. T. Crehan, and C. J. Lovell	Internal Image and Bit Array for Display and Printing of Graphics
4,555,701	R. E. Dahl, D. P. Faflak, and L. A. Sendelbach	Legibility Enhancement for Alphanumeric Displays
4,555,721	J. P. Bansal, C. L. Bertin, and R. R. Troutman	Structure of Stacked, Complementary MOS Field Effect Transistor Circuits
4,555,739	D. L. Van and J. T. Wallace	Semi Self-Loading Ferrite Head
4,555,759	R. A. McCaskill, J. W. McInroy, and P. D. Waldo	Selective Use of Restored File Setups
4,555,767	W. R. Case and W. E. Johnson	Method and Apparatus for Measuring Thickness of Epitaxial Layer by Infrared Reflectance
4,555,769	E. L. Carter and H. T. Ward	Circuit Apparatus for Generating Modulus-N Residues
4,555,772	L. K. Stephens	Current Cursor Symbol Demarkation
4,555,773	R. E. Karnes, Jr., R. A. McCaskill, and K. D. Nguyen	Printing with a Data Stream Including Merged Graphic and Alphanumeric Data
4,555,776	C. J. Masenas, Jr.	Voltage Balancing Circuit for Memory Systems
4,555,802	J. F. Fedak, G. I. Findley, and T. A. Torr	Compaction and Decomposition of Non-Coded Information Bearing Signals
4,558,508	W. I. Kinney, C. W. Koburger III, J. B. Lasky, L. A. Nesbit, R. R. Troutman, and F. R. White	Process of Making Dual Well CMOS Semiconductor Structure with Aligned Field-Dopings Using Single Masking Step
4,558,509	S. Tiwari	Method for Fabricating a Gallium Arsenide Semiconductor Device
4,558,590	K. V. Desai and R. L. Keusseyan	Method for Measuring the Real Contact Area in Connectors
4,558,963	S. L. Applegate, J. J. Molloy, and C. V. Wilbur	Feed Rates and Two-Mode Embodiments for Thermal Transfer Medium Conservation
4,559,447	N. E. Schlotter and J. F. Rabolt	Translation/Rotation Positioning Device
4,559,611	D. L. Ostapko	Mapping and Memory Hardware for Writing Horizontal and Vertical Lines
4,559,614	C. L. Peek, P. C. Richey, and J. H. Summers	Interactive Code Format Transform for Communicating Data Between Incompatible Information Processing Systems
4,559,636	G. Goldrian	Time-Measuring Adapter for Logic Analyzer
4,561,506	S. E. Booker	Pivoting Driver with Changeable Bits
4,561,620	F. E. Goetz, J. C. Harris, and S. E. Howell	Tilttable Cathode Ray Tube Display Device Structure
4,561,790	V. R. Evans, R. H. Harris, A. C. Thorpe, and J. E. Watts	Wire Matrix Print Head Apparatus
4,562,091	H. S. Sachdev and K. G. Sachdev	Use of Plasma Polymerized Organosilicon Films in Fabrication of Lift-Off Masks
4,562,305	J. E. Gaffney, Jr.	Software Cryptographic Apparatus and Method
4,562,450	J. J. Ellis, Jr. and G. A. Emerson	Data Management for Plasma Display
4,562,513	A. F. Arnold and A. F. Schmeckenbecher	Process for Forming a High Density Metallurgy System on a Substrate and Structure Thereof
4,562,525	M. F. M. S. Ferry and J. L. Trehin	DC Power Supply Circuit for Line Interface Circuits
4,562,592	T. J. Chainer and T. K. Worthington	Shifting Technique for Signature Verification
4,562,594	G. M. Bednar and G. B. Fryer	Method and Apparatus for Segmenting Character Images
4,564,426	T. P. Henning and R. D. Topa	Process for the Deposition of Palladium-Nickel Alloy
4,564,575	S. E. Perreault and R. L. Wood	Tailoring of Novolak and Diazoquinone Positive Resists by Acylation of Novolak
4,564,584	E. C. Fredericks and H. N. Kotecha	Photoresist Lift-Off Process for Fabricating Semiconductor Devices
4,564,756	M. Johnson	Proximity Sensor with a Light-Emitting Diode Which Simultaneously Emits and Detects Light

4,564,772	G. A. Maley and D. W. Westcott	Latching Circuit Speed-up Technique
4,564,794	R. S. Kilen and L. E. Rittenhouse	Phase Locked Loop and a Motor Control Servo
4,564,903	R. R. Guyette, E. T. Hall, A. S. Meritt, S. R. Newson, C. A. Scalzi, and G. W. Sears, Jr.	Partitioned Multiprocessor Programming System
4,564,943	J. C. Collins and J. J. DeFazio	System Path Stressing
4,564,944	R. F. Arnold, J. Cocke, D. Coppersmith, A. E. Seigler, and G. E. Strait	Error Correcting Scheme
4,565,947	A. B. Minn	Color Cathode Ray Tube for Use with a Light Pen
4,566,004	G. A. Emerson	Data Management for Plasma Display
4,566,005	N. Apperley, R. J. Edwards, R. L. J. Foster, D. C. Haigh, M. Haslam, and P. Verey	Data Management for Plasma Display
4,566,019	G. Goldrian and V. Rudolph	Method of Driving Electrodes in an Electroerosion Printer
4,566,022	H. L. Kalter and D. B. Kiley	Flexible/Compressed Array Macro Design
4,566,044	G. G. Langdon, Jr. and P. H. Siegel	Direction-Constrained Ternary Codes Using Peak and Polarity Detection
4,566,050	D. L. Beam and G. P. Double	Skew Insensitive Magnetic Read Head
4,566,078	R. P. Crabtree	Concurrent Multi-Lingual Use in Data Processing Systems
4,566,097	S. Bederman	Token Ring with Secondary Transmit Opportunities
4,566,102	J. L. Hefner	Parallel-Shift Error Reconfiguration
4,566,134	E. E. Harbour, R. C. Lynch, and G. R. Stilwell, Jr.	Circuit for Interfacing Remote Functional Units to a Terminal
4,566,173	W. Gössler, A. Strube, and M. Zurheide	Gate Insulation Layer and Method of Producing Such a Structure
4,566,913	M. H. Brodsky and Z. A. Weinberg	Rapid Thermal Annealing of Silicon Dioxide for Reduced Electron Trapping
4,567,132	E. C. Fredericks, H. L. Greenhaus, M. M. Nanda, and G. G. Via	Multi-Level Resist Image Reversal Lithography Process
4,567,378	N. Raver	Driver Circuit for Controlling Signal Rise and Fall in Field Effect Transistor Processors
4,567,464	P. H. Siegel and S. J. Todd	Fixed Rate Constrained Channel Code Generating and Recovery Method and Means Having Spectral Nulls for Pilot Signal Insertion
4,567,490	A. Afzali-Ardakani, M. S. Cohen, K. S. Pennington, and K. G. Sachdev	Electroerosion Recording Medium of Improved Lubricity
4,567,561	V. D. Wyatt, W. R. Kraft, and N. G. Thoma	Large Scale Integration Data Processor Signal Transfer Mechanism
4,567,574	H. Y. Saadé and W. N. J. Tindall	Optimizing COBOL Object Code Instruction Path Length with Respect to Perform Statements
4,567,590	S. Bederman	Message Stripping Protocol for a Ring Communication Network
4,567,645	R. A. Cavanagh, J. L. Forneris, G. B. Forney, G. Hrebin, Jr., and R. A. Knapp	Method for Forming a Buried Subcollector in a Semiconductor Substrate by Ion Implantation
4,568,211	S. G. L. Fox, M. J. Galatha, and D. V. Iorio	Printer with Slidable Tear Bar
4,568,277	R. D. MacInnes, C. C. Periu, and R. L. Rohr	Apparatus for Heating Objects to and Maintaining Them at a Desired Temperature
4,568,601	C. J. Araps, G. Czornyj, S. M. Kandetzke, and M. A. Takacs	Use of Radiation Sensitive Polymerizable Oligomers to Produce Polyimide Negative Resists and Planarized Dielectric Components for Semiconductor Structures
4,568,611	C. J. Amirsakis and R. L. Bradshaw	Polyester-Polyurethane Composition and Use Thereof
4,568,621	A. Aviram and M. S. Cohen	Thermal Transfer Printing Processes with Electroerosion and Materials Therefor
4,568,631	D. A. Badami, M. C. Hakey, and H. Moritz	Process for Delineating Photoresist Lines at Pattern Edges Only Using Image Reversal Composition with Diazoquinone
4,568,632	S. E. Blum, K. L. Holloway, and R. Srinivasan	Patterning of Polyimide Films with Far Ultraviolet Light
4,568,861	S. K. Doran, D. F. Haire, and R. R. Trotter	Method and Apparatus for Controlling Alignment and Brightness of an Electron Beam
4,568,959	L. L. Chang and F. F. Fang	Photomultiplier
4,568,977	S. G. Chamberlain, K. S. Pennington, and G. D. Rohrer	On-Chip CCD Realization of the Laplacian Operator for Image Signal Processing
4,569,015	D. Dolev and H. R. Strong	Method for Achieving Multiple Processor Agreement Optimized for No Faults
4,569,016	H. T. Hao, P. W. Markstein, and G. Radin	Mechanism for Implementing One Machine Cycle Executable Mask and Rotate Instructions in a Primitive Instruction Set Computing System
4,569,034	G. I. Findley and W. C. Yu	Method and Apparatus Which Allows the Working Storage to Be Reconfigured According to Demands for Processing Data Input
4,569,065	M. Cukier	Phase-Locked Clock
4,569,075	H. Nussbaumer	Method of Coding Voice Signals and Device Using Said Method
4,569,081	F. C. Mintzer, K. L. Anderson, and J. L. Mitchell	Method for Expansion of a Digital Image
4,569,468	J. H. Neer	Continuous Forms Feed Tractor with Multiple Cut Forms Chutes
4,569,605	J. H. Meier and D. W. Hanna	Wire Driving Armature for Dot Printer

4,569,610	J. E. Drejza and M. J. Galatha	Multi-Function Document Transport System for Printers
4,569,743	T. Bayer, G. Kraus, U. Kuenzel, G. Renz, and R. Schaefer	Method and Apparatus for the Selective Self-Aligned Deposition of Metal Layers
4,570,061	L. T. Cooper and K. R. Primmer	Follower Finger Sheet Separating Apparatus
4,570,082	G. A. Maley and D. W. Westcott	Single Clocked Latch Circuit
4,570,084	W. R. Griffin and L. G. Heller	Clocked Differential Cascode Voltage Switch Logic Systems
4,570,086	J. W. Bode and F. A. Montegari	High Speed Complementary NOR (NAND) Circuit
4,570,090	C. U. Buscaglia and L. E. Knepper	High-Speed Sense Amplifier Circuit with Inhibit Capability
4,570,110	R. D. Bloom, J. V. Gac, and E. T. Kozol	Programmable Servo Motor Speed Control Apparatus
4,570,130	D. R. Grindel and G. A. Trudgen	Input Controller Circuit Apparatus for Phase Lock Loop Voltage Controlled Oscillator
4,570,159	T. N. Criscimagna and W. J. Martin	"Selstain" Integrated Circuitry
4,570,161	D. A. Kummer, J. A. Saenz, and S. W. Trynosky	Raster Scan Digital Display System
4,570,180	H. Baier, P. Köpp, M. Schneiderhan, H.-P. Reimann, H. Rösch, and E. Pfeffer	Method for Automatic Optical Inspection
4,570,191	T. H. Di Stefano and H. B. Bakoglu	Optical Sensor for Servo Position Control
4,570,241	L. M. Arzubi	FET Storage with Partitioned Bit Lines